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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/597,335

07/21/2006

Merritt B. Andrus

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EXAMINER

NWAONICHA, CHUKWUMA O

ART UNIT

PAPER NUMBER

1621

MAIL DATE

DELIVERY MODE

09/01/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/597,335	Applicant(s) ANDRUS ET AL.	
	Examiner CHUKWUMA O. NWAONICHA	Art Unit 1621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 69-81 and 83-91 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 79,90 and 91 is/are allowed.
- 6) ☒ Claim(s) 69,70,73,88 and 89 is/are rejected.
- 7) ☒ Claim(s) 71,72,74-78 and 80-87 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

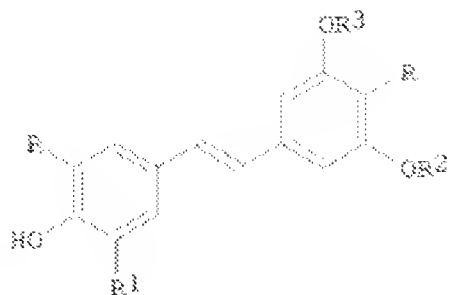
- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>18 May 2009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Current Status

1. This action is responsive to Applicants' amendment of 18 May 2009.
2. Receipt and entry of Applicants' amendment is acknowledged.
3. Claims 69-81 and 83-91 are pending.
4. The rejection of claims 69, 73, 75 and 76 under 35 U.S.C. 103 as being unpatentable over Engler et al., {Lewis Acid-Promoted Reactions of Unsymmetrically Substituted Stilbenes with 2-Methoxy-1,4-benzoquinones: Stereoselective Synthesis of trans-2,3-Diaryl-2,3-dihydrobenzofurans, Journal of Organic Chemistry (1995), 60(12), 3700-3706} is withdrawn following Applicants amendments. Engler et al. do not teach all the claims limitation.
5. The rejection of claims 69 and 73 under 35 U.S.C. 103 as being unpatentable over Gokaraju et al., {WO 2004000302 same as US 7,026,518} is maintained for the reasons set forth in the previous Office Action of 12/16/2008.

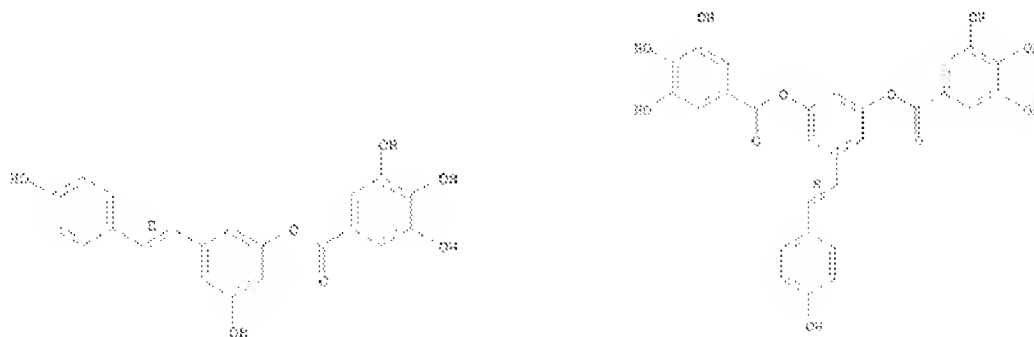
Applicants' argument and amendments filed 18 May 2009 have been fully considered but they are not persuasive because Applicants claimed compound is obvious in view of the prior art reference cited. Gokaraju et al. teach the compound shown below wherein the variable R and R¹ are hydrogen, and R² and R³ are aryl group. See columns 5 and 6 of US 7,026,518 for the definition of the variables of compounds 4 and 5. The definition of the variables embraces Applicants claimed compounds when the variables R₁ and R₂ in claim 69 are aryl group.



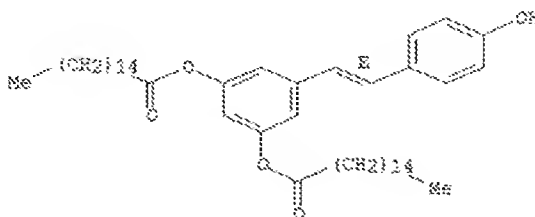
6. The rejection of claims 69-72 and 75-78 under 35 U.S.C. 102 as being anticipated by Lockwood et al., {US 7,145,025 or WO 2004011423} and Scaramuzzino, {EP 1336602} is withdrawn following Applicants amendments. Lockwood et al. and Scaramuzzino do not disclosed Applicants closed compound.

7. The rejection of claims 69, 70 and 73 under 35 U.S.C. 102 as being anticipated by Gokaraju et al., {WO 2004000302 same as US 7,026,518} and Nicolosi et al., {Chemo-enzymatic preparation of resveratrol derivatives, Journal of Molecular Catalysis B: Enzymatic (2002), 16(5-6), 223-229} is maintained because the prior art references cited disclose Applicants claimed compound.

Nicolosi et al. disclose Applicants claimed compound as shown below. Both compounds shown below read on Applicants compounds.



Nicolosi et al. disclose Applicants claimed compound as shown below. The disclosed compound reads on Applicants compounds.



Claim Objection

Claim 75, 78, 80-85 and 87 are objected. The independent claim 69 recites alkyl group while claim 75 recites **saturated** alkyl for the variable R₃. It is not clear if Applicants are including alkenyl group as a variable for R₃. Claims 78 and 87 are objected because independent claims 69 and 79 recite **unsubstituted** alkyl while claims 78 and 87 recite isobutanoate, which is a methyl substituted propanoate.

Claims 80-85 are objected because independent claim 79 recites **unsubstituted** alkyl while claims 80-85 recite saturated alkyl and alkyl groups for the variable R. It is not clear if Applicants are including alkenyl group as a variable for R₃. Appropriate corrections are required.

Claim Rejections - 35 USC § 102

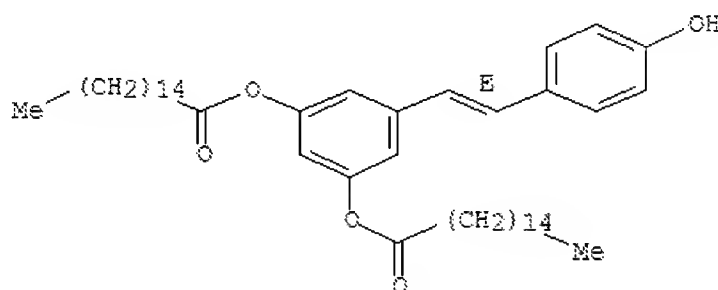
The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 69, 73 and 88 is rejected under 35 U.S.C. 102(b) as being anticipated by Nicolosi et al., {Chemo-enzymatic preparation of resveratrol derivatives, Journal of Molecular Catalysis B: Enzymatic (2002), 16(5-6), 223-229}.

Nicolosi et al. disclose Applicants claimed compound (a trans configuration) as shown below. See page 228.



Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

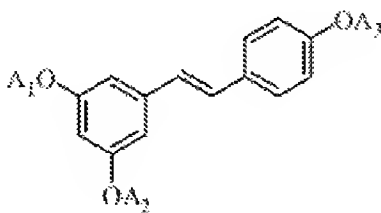
1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 69, 73 and 89 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gokaraju et al., {WO 2004000302 same as US 7,026,518}.

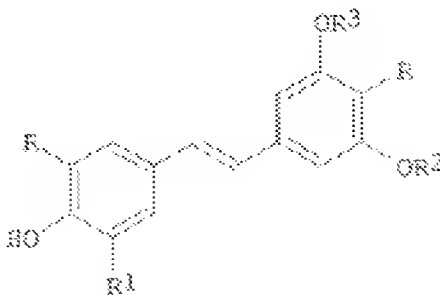
Applicants claim the compound of the general formula 1; wherein all the variables are as defined in the claims.



Formula 1

Determination of the scope and content of the prior art (M.P.E.P. §2141.01)

Gokaraju et al. teach applicants claimed compound as shown; wherein R₁ and R₂ are aryl group. See columns 5 and 6 of US 7,026,518 for the definition of the variables of compounds 4 and 5.



Ascertainment of the difference between the prior art and the claims (M.P.E.P. §2141.02)

Applicants claimed compound of the general formula 1 differs from the teaching of the prior art reference cited in that the Applicants claimed a cis configuration of the compound of the general formula 1 while the prior art reference teach the trans configuration.

Finding of prima facie obviousness--rational and motivation (M.P.E.P.. §2142-2143)

The instantly claimed compounds of the general formula 1 would have been obvious to one of ordinary skill in view of the compounds of Gokaraju et al. because the instant compound is an isomer of the prior art compound. Said person would have been motivated to practice the teaching of the reference cited because of the pharmaceutical applications of the compounds. Isomers are obvious because of their property relationship and Applicants claiming the cis configuration of the compound of the general formula 1 do not constitute a patentable distinction **absent** a showing of criticality. Therefore, the prior art's compound would be expected to have similar properties and activities as the compounds of the present invention.

Allowable Subject Matter

Claims 71, 72, 74, 76, 77 and 86 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Allowed Claims

Claims 79, 90 and 91 are allowable over the prior art of record.

Reason For Allowance

The following is an examiner's statement of reasons for allowance: A search of the prior art failed to uncover any reference that anticipates or renders obvious a compound of the general formula I, its diastereoisomers and pharmaceutical salt; wherein all the variables are as defined in the claims.

Applicants are queried as to the reasons for the proviso clause in claims 69 and 79. If it is in order to avoid art, applicants are requested to provide the examiner with a copy of the said art and to specifically identify where in the prior art the proviso compounds can be found.

Applicants' amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chukwuma O. Nwaonicha whose telephone number is 571-272-2908. The examiner can normally be reached on Monday thru Friday, 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Sullivan can be reached on 571-272-0779. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Chukwuma O. Nwaonicha/
Examiner, Art Unit 1621

/Daniel M Sullivan/
Supervisory Patent Examiner, Art Unit 1621